

NOAA Education Mini Grant Progress Report

NOAA PI	Jamie Krauk
NOAA Office	National Sea Grant College Program
NOAA Partners	None
Outside Partners	Virginia Sea Grant
Project Title	NOAA Bridge Project
Award #	D8P1ESG
Type of Report	6 month <input type="checkbox"/> Final <input checked="" type="checkbox"/>

Project Progress	<p>Objective 1: Improve visibility and dissemination of NOAA educational materials through a collection managed by the Bridge.</p> <p>The portal website for the NOAA Educational Resources Collection has been completed after undergoing usability testing as a beta test site. While showcasing a new graphic identity, the portal site displays the Bridge, NOAA and Sea Grant logos and uses a navigation menu consistent with that of the Bridge, thus providing consistency to the user. Through the page title, NOAA logo, and site metadata, this discrete collection of NOAA education resources is clearly identified. The site is contained within the Bridge, but can also be directly accessed or linked to at http://www2.vims.edu/bridge/noaa/.</p> <p>The front page features: a randomly generated "Featured NOAA Resource" illustrated with a graphic image; a search based on keyword and optional grade level; a navigation menu that searches the database by topic area; and the option to translate the page into Spanish, French or Italian via Google's translation service. The results page for both the keyword search or navigation menu selection displays the resource title, which is a hyperlink to the resource site, as well as a graphic image, resource abstract, and the applicable audience level. On the search results page, the user can refine the search by audience level, resource type such as "lesson plan," and NOAA Program such as National Estuarine Research Reserve. An "About the Collection" page (http://www2.vims.edu/bridge/noaa/about.cfm) describes the purpose of the project and offers users an advanced search capability that identifies each resource's relevance to NOAA Mission Goals or Office of Education Strategies. This feature, of primarily internal interest, allows examination of the entire collection for targeted NOAA-wide</p>
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	<p>relevance and analysis of products.</p> <p>NOAA resources currently included in the Bridge collection have been accessioned into the Digital Library for Earth System Education (DLESE) with other Bridge resources and are currently being processed into a special collection by DLESE staff. All NOAA/Bridge resources that are uploaded to DLESE are also uploaded to the National Science Digital Library, where they are available to the broad science education community nation-wide. A NOAA/Bridge scope statement describing the collection has been prepared and is currently available at http://www.marine-ed.org/bridge/noaa_collection_scope.doc. When the NOAA/Bridge collection becomes a collection separate from the Bridge on DLESE, the scope statement will also be available for reference for DLESE users.</p> <p>On 4 August 2006, 32 of the country's top high school marine educators – National Ocean Sciences Bowl (NOSB) coaches – served as a focus group for a survey on teachers' ocean sciences resource literacy and needs. These educators, including master teachers with extensive careers and others relatively new to the classroom, participated in a written survey at a face-to-face workshop held by NOSB, with instructional assistance from Bridge staff, at the Consortium for Oceanographic Research and Education office in Washington, D.C. Teachers were asked how they located and evaluated resources for teaching and for preparing students for NOSB competition. The survey confirmed that web resources represent a significant source of information for high school marine educators; over 90% of teachers in this group reported using them. NOAA ranked highest among the government agency sites these teachers reported as valuable (receiving nearly 30% of "votes" in this category).</p> <p>Formative evaluation activities:</p> <p>On 30 September 2006, Bridge staff conducted a group usability study of the first draft of the NOAA portal site at the annual meeting of the Mid-Atlantic Marine Education Association. Results were used to improve the design and content of the NOAA collection portal webpages.</p> <p>On 20 September 2006, Bridge staff presented the draft version of the NOAA portal site to a NOAA staff at a "brown bag" seminar in the NOAA library and at a meeting of the NOAA Education Council in Silver Spring, MD.</p> <p>On 29 March 2007, Bridge staff conducted a second website usability test at the National Marine Educators Association Share-A-Thon at the</p>
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National Science Teachers Association National Conference in St. Louis, MO. One-on-one interviews with science educators provided in-depth feedback on the site, allowing us to further refine the design, layout and function of the NOAA portal site.

Information about the NOAA collection has been, and continues to be, disseminated through many ocean sciences education channels. In addition to the information disseminated during the previously described useability tests in September 2006 and March 2007, the Bridge's NOAA collection was featured at a Bridge exhibit during the Virginia Association of Science Teachers annual conference in Richmond, VA November 17-18, 2006. Articles describing the collection have appeared in the NOAA/Marine Protected Areas Center's Information Exchange for Marine Educators (April 2007) and National Marine Educators Association's NMEA News (Summer 2007). Information on the NOAA collection has been distributed to ocean sciences education groups and listservs including: the Centers for Ocean Sciences Education Excellence; Scuttlebutt, the Bridge's free online discussion list; the National Science Teachers Association's Building a Presence for Science Network; the Mid-Atlantic Marine Education Association; and the Virginia Association of Science Teachers. Site metadata have been optimized to attract search engines and the site has been submitted to the Yahoo Directory and the Open Directory Project (DMOZ), which feeds Google, AOL Search, and other major search engines.

In July 2007, the Bridge staff will make a presentation about the NOAA collection at the annual meeting of the National Marine Educators Association.

A prominent link to the site is on the Bridge homepage, where more than 37,000 people each month see it. Visitation statistics are maintained using Urchin via Google Analytics and secondary tracking will soon be available with Webalizer. Because the site is so new, few links have yet been made to it and large scale visitation has not yet begun. However, we can report baseline, start-up data at this point. During the week of May 21 -25, 2007, the site had 144 visitors and 57% of these were first time visitors. There were 659 pages viewed. We know that 68% of visitors use Internet Explorer, 24% use Firefox, and 7% use Safari. Most visitors arrived from English-speaking sites, but two were French. Six visitors were referred to the site from the Mid-Atlantic Marine Education Association webpages, six from captainkids.org (where the link was titled "our top picks"), and most of the rest arrived via the link on the Bridge home page.

Objective2: Review Bridge holdings for NOAA materials, locate and add new NOAA resources.

The Bridge specializes in providing teacher-reviewed resources, and holds an established and respected position in the marine education community. It applies a powerful search engine with metadata of importance to educators. These assets make the Bridge an ideal partner for NOAA, helping the Agency build its constituency by facilitating marine science educators in their search for the NOAA products that match their needs.

At the time of this report, the Bridge has amassed 148 NOAA resources identified from the existing Bridge database resources and nomination by NOAA scientists and educators. The Bridge's TROLLs (Teacher Reviewers of On-line Learning) have reviewed (using Bridge review criteria and rating systems) and recommended them all for inclusion in the NOAA collection on the Bridge. Bridge staff has developed metadata for new resources and updated information for existing resources to include information necessary for this project. Metadata on record for all NOAA resources is maintained and structured to DLESE specifications and includes:-

- Title- URL
- Resource/Page Title
- Abstract
- Keywords
- Audience/grade level
- Type of resource (e.g. classroom activity, lesson plan, reference material, etc.)
- Subject area
- NOAA entity publishing the resource (complete citation)
- NOAA mission goals addressed
- NOAA educational strategies addressed

Identification and cataloging of resources is ongoing, beyond the grant period. A set of forms was prepared to facilitate nomination of additional sites and updating of those already in the Bridge's database. The entry form is available at <http://www2.vims.edu/bridge/noaa/noaanominationform.html>. This form first asks for the resource title and URL. Once submitted, the information is automatically checked against the resources in the database. If a nominated resource already exists in the database, a form is displayed with information filled in, but available for editing. The form also informs the user of the date and name of the person who last edited the information. If the resource is not already in the database, a blank form is displayed to complete the nomination

	<p>process.</p> <p>On 20 September 2006, several members of the Bridge staff provided a briefing to the NOAA Education Council and a seminar for NOAA's mid-day brown bag series. The site nomination process was described to both groups and participants were encouraged to submit candidate NOAA sites. New entries are continuously received via the posted form and processed through Bridge review.</p> <p>Objective 3: Provide a search utility that can be installed on webpages external to the Bridge, so that NOAA educational resources can be conveniently searched from various NOAA websites.</p> <p>Basic coding for the search utility has been completed and a beta test was conducted. Three versions of the search form have been prepared and are currently being distributed to the NOAA Education Council, to NOAA agencies that maintain education web pages and to other ocean education websites that would like to be able to launch a search of the Bridge's collection of NOAA educational resources from their pages. The versions are as follows:</p> <p>A three-dimensional graphic button displaying the NOAA logo and providing for key word search. This button is contained in an html table, which may be simply pasted into a web page at the desired location.</p> <p>A pared-down code-only option with no formatting for those who would like to fully incorporate it into existing page design.</p> <p>A css-based version that allows users to launch a search by grade level as well as keyword from any page where the code is installed. This version is furnished in blue, but colors and layout are easily manipulated by webmasters at the local site level.</p> <p>These forms are being distributed primarily as a zip file via email, but they can also be downloaded from a page on the NOAA education collection website (http://www2.vims.edu/bridge/noaa/searchbox.html). All necessary graphic, html, and css files and instructions are included in the package.</p>
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Budget Update	Accomplishment/Milestone/Task	Amount Spent	Date Completed Month/Year
	<i>Objective 1: Improve visibility and dissemination of NOAA educational materials through a collection managed by the Bridge.</i>	\$10,000 \$14,000	4/06-10/06 11/06-4/07

	<i>Objective2: Review Bridge holdings for NOAA materials, locate and add new NOAA resources.</i>	\$10,000	4/06-10/06
		\$14,000	11/06-4/07
	<i>Objective 3: Provide a search utility that can be installed on webpages external to the Bridge, so that NOAA educational resources can be conveniently searched from various NOAA websites.</i>	\$5,673	4/06-10/06
		\$16,327	11/06-4/07

Issues/Concerns	No issues or concerns at this time
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